

UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF NEW YORK

MOOG INC.,

Plaintiff,

v.

Case No.: No. 22-cv-00187

SKYRYSE, INC., ROBERT ALIN
PILKINGTON, MISOOK KIM, and DOES NOS.
1-50,

Defendants.

DECLARATION OF KEVIN M. CROZIER

KEVIN M. CROZIER, under penalty of perjury and pursuant to 28 U.S.C. § 1746, declares the following to be true and correct:

I. Background

1. My name is Kevin M. Crozier. I provide this declaration in support of Moog Inc.'s ("Moog") Motion to Compel Discovery Necessary for Further Trade Secret Identification. I am over the age of 18 years. I have personal knowledge of the matters set forth herein and if called as a witness, I could and would competently testify as to all facts set forth herein.

2. I have been retained by Sheppard, Mullin, Richter & Hampton LLP, counsel for Moog Inc. ("Moog" or "Company") to, among other things, analyze and opine on defendant Skyryse, Inc.'s ("Skyryse") flight control source code, software, and other software-related documents to assist Moog in determining to what extent Skyryse has misappropriated, copied, or otherwise used Moog's trade secrets.

3. I have a Bachelor of Science degree in Electrical Engineering with a Minor in Computer Science from Rensselaer Polytechnic Institute and Master of Science degree in Electronics Engineering from the University of Illinois. I am a Federal Aviation Administration (FAA) consultant Designated Engineering Representative (DER) for safety critical avionics software with more than two decades of hands-on industry experience in software development. I have specialized technical experience in embedded systems and software development, compiler design and implementation, processor architecture, multi-core network processors (NPUs), software simulation, and network security protocols.

4. From 1999-2000, I worked for Hewlett Packard (HP) developing compiler technologies for 64-bit microprocessors using C++. At HP, I was granted 2 patents for floating point code optimizations that I developed and implemented.

5. From 2000-2005, I worked for Teja Technologies where I designed and implemented a C--like language to express state machines used to program multicore NPUs. I was the technical team leader for the Teja toolchain port to AMCC NPU from requirement definition through implementation. I was also a lead software architect on customer projects, with tasks that included defining software architectures, creating IXP processor microcode, writing embedded C for the VxWorks real-time operating system, analyzing performance, and performing functional testing.

6. From 2005 to 2013, I worked from Cavium Networks (now Marvell) as the lead customer applications architect for ARM-based networking, set top box, and wireless display system-on-chip (SOC) products, the OCTEON multicore MIPS-based processor, the NITROX security co-processor, and the ECONA multicore ARM-based processor. I architected numerous designs for strategic customers, including integrated service routers, enterprise IPsec security

platforms, network service platforms, SSL load balancers, application load balancers, storage networking modules, enterprise wireless access points, enterprise wireless controllers, home router-gateways, home wireless access points, satellite networking equipment, consumer NAS devices, and network test equipment. I also developed device drivers and embedded networking applications in C, C++, and assembly for platforms based on Linux v2.6 as well as bare metal MIPS, and u-boot.

7. From 2013 to 2016, I worked for BendixKing by Honeywell as the director of software engineering and chief software architect for a next generation of avionics and flight displays for general aviation aircraft. I co-led a successful hardware and software prototype effort to prove software and hardware platform feasibility for GPS/FMS product and communication radio product. I developed a streamlined system and software development process based on Agile methodologies to optimize the efficiency of a small co-located development team for a fully integrated and modular primary and multi-function flight display. I helped define the system requirements and software architecture and led software design, development and review in C, C++, and assembly. I successfully developed, implemented, and refined a DO-178C software process and infrastructure from the ground up, including requirements capture and review; code development and testing; and quality assurance.

8. Since 2016, I have worked as a FAA consultant DER ensuring that engineering data for aircraft software systems complies with the FAA's airworthiness standards. My FAA designation allows me to approve software engineering data on small and large airplanes (part 23 and 25) and helicopters (part 27 and 29) up to the highest level of level of safety critically (DAL A).

9. I am also a commercial pilot and certified flight instructor with over 2800 hours of total flight time and over 650 hours of dual instruction given.

II. Evidence of Skyrise's Direct Copying of Moog Software-Related Documents

10. Pursuant to the procedures set forth in the Protective Order entered in this case (ECF 89) and the Inspection Protocol (ECF 96-02), I have been granted access to certain electronic devices and data turned over to iDS by all parties in the case through inspection laptops and iDS' remote virtual machine software.

11. During my inspection of the Moog and Skyrise devices and data turned over to iDS, I have noted several examples of Skyrise's direct copying of Moog software and documents. While there are additional examples, herein I summarize two such examples.

A. Moog's Desktop Test Environment

12. Moog Desktop Test Environment (MDTE) is a software test tool which supports different tiers of testing and provides a versatile execution environment used in the verification of safety critical software. The MDTE tool supports all three tiers of test types needed for DO-178C certification testing: System, Software Integration and Unit level testing. Compliance with the objectives of DO-178C is the primary means for meeting airworthiness requirements and obtaining approval of the FAA for the software used in civil aviation products including automatic flight control systems (autopilots), flight management systems, and even passenger entertainment systems. Based on my inspection of Moog and Skyrise devices and data turned over to iDS, I discovered that twenty-four (24) Moog MDTE python and C source code files present on defendant Robert Alin Pilkington's ("Pilkington") Moog-issued Dell Laptop (given the identifier of E0031 by iDS) are identical or nearly identical to the twenty-four (24) [REDACTED]

B. Moog's Software Process Checklist Templates

14. The development of safety critical software used in aircraft must follow a well-defined software development process which is tailored to meet the objectives of software certification as defined in DO-178C. The first step in meeting these objectives is to develop plans which document a software development process for the specific project. There are typically 5 software plans and 3 software standards along with a number of checklists which are created to define this process. These plans are followed by all of the software engineers during the course of the project. The associated checklists are used to confirm that the document, code, or test developed by the engineer will meet the appropriate objectives of DO-178C as required for certification.

15. Based on my experience and background, a company will make templates of these documents and checklists and then reuse them (with some tailoring) for each software project they undertake. These plans and standards are typically regarded as company IP as there is significant effort that has gone into them for their initial development and updating as the company's software process has evolved. When a new avionics company starts to develop its own process, it generally must either purchase these checklists and plan templates from another company or develop them from scratch. Generally, the cost is significant for either route.

16. Based on my inspection of Moog and Skyrise devices and data turned over to iDS, I also discovered that ten (10) Microsoft Excel Software Process Checklist Templates were found on Pilkington's Skyrise-issued Mac Book Pro Laptop (given the identifier of E0028 by iDS) which are nearly identical in structure, verbiage and form to Moog software process checklist templates found on Pilkington's Moog-issued Dell Laptop (given the identifier of E0031 by iDS).

17. The only changes to the Skyrise versions were to remove some Moog-specific instructions and remove supporting information to assist in the completion of the checklist. The checklist items themselves were essentially unchanged from the Moog templates. With respect to the certification process for flight control software in connection with FAA requirements, these types of software process checklists are used extensively during software certification for requirement, design, code, and test reviews. These reviews and the completed review checklists are essential to meeting the verification objectives of DO-178C. A specific breakdown of the corresponding Moog and Skyrise software process checklist documents is as follows:

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[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
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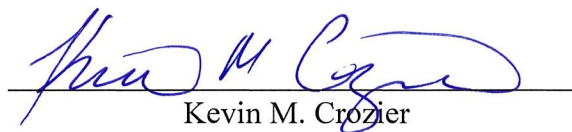
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I declare that the foregoing is true and correct under penalty of perjury under the laws of the United States of America.

Dated: August 3, 2022



Kevin M. Crozier